ISSN 0704-3716

Canadian Translation of Fisheries and Aquatic Sciences

No. 5324

Employment study of the fish farming industry 1985

Rolf Engelsen and Eva Tamber,
The County Employment Agency of Hordaland; and
Trond Tepstad, Office of Business Economical Studies,
Fisheries Directorate

Original title: Sysselsettingsundersokelse av fiskeoppdrettsnaeringen 1985

In: Fiskets Gang, No. 22, Week 42: 697-699, 1986

Original language: Norwegian

Available from:
Canada Institute for Scientific and Technical Information
National Research Council
Ottawa, Ontario, Canada K1A 0S2

1987

8 typescript pages

Secretary of State Secrétariat d'État

90-02103/

MULTILINGUAL SERVICES DIVISION – DIVISION DES SERVICES MULTILINGUES

TRANSLATION BUREAU BUREAU DES TRADUCTIONS

Client's No.–N° du client	Department – Ministère	Division/Branch – Division/Direction	City – Ville
	DFO	IPB	
Bureau No.–N° du bureau	**Language – Langue**	**Translator (Initials) – Traducteur (Initiales)**	
3287207	Norwegian	LT	AUG 5 1987

Fiskets Gang No. 22
Week 42
1987

EMPLOYMENT STUDY OF THE FISH-FARMING INDUSTRY 1985*)

Introduction

The Hordaland County Employment Agency of the Labor Directorate and the Office of Business-Economical Studies of the Fisheries Directorate cooperated to conduct a study of employment in the fish-farming plants. The study is a complete enumeration. The information was gathered by special questionnaires sent to every plant in winter 1986. The employment was measured at a given timepoint set at week 49, i.e., December 1 - 7 1985. The timepoint was selected so that it would be close to the time at which the study was conducted.

---

*) By Rolf Engelsen and Eva Tamber,
The County Employment Agency of Hordaland; and
Trond Tepstad, Office of Business Economical Studies,
Fisheries Directorate.

UNEDITED TRANSLATION
For information only
TRADUCTION NON REVISEE
Information seulement

The results should not be regarded as direct averages of employment in 1985. First, there has been a rapid rise in the numbers of employees, and secondly, the industry uses seasonal labor extensively. The share of seasonal labor is calculated not to be particularly big in the study week (December 1 - 7).

The study results will be published as a separate report. The present article discloses some main points of the results.

Extent

The study includes all plants that had a permit for fish-farming in 1985 in accordance with the Fisheries Directorate's register (covering plants producing consumption fish, parent fish, and hatchery fish/fish for stocking). Plants not operating in 1985 (i.e. with no fish in the plant in 1985) are excluded. Employees of new establishments in the project stage or under construction are excluded. The study excludes also plants engaged in shellfish production and plants exclusively engaged in cultivation (for stocking waters with fry etc.). A total of 675 plants are included.

Definition of employee

Employees are persons receiving wages from undertaking/plant for a minimum of 1 hr's work in week 49 (Dec. 1 - 7) and labor consisting of possibly unpaid family members working a minimum of 10 hours in the same week.

Fulltime employees are defined as employees working 30 hours or more. Part-time employees are those working less than 30 hours.

Distribution of labor in fish-farming

At the timepoint studied, a total of 2 948 persons were employed in the various activities that are part of fish-farming, i.e., hatcheries, plants growing fish for stocking, those producing consumption or parent fish, and undertakings otherwise directly associated with the industry.

Out of the total, 1 943 persons (66 %) were fulltime employees and 1 005 (34 %) part-time. Table 1 illustrates the geographical distribution of the labor.

The Vestland counties had 52 % of all employees, Trondelag 16 %, and North Norway 29 %. The Ostland and Sorland counties together had only 3 % of the employees. The big fish-farming counties were Hordaland, Nordland, and More and Romsdal. These three counties together were responsible for 55 % of the labor in the industry.

The group **food fish farms**, including parent fish plants, had 1 381 fulltime employees and 804 part-time employees, which means 63 % and 37 % of a total of 2 185 employees, respectively. Nordland, Hordaland, and More and Romsdal were the biggest food-fish producing counties as well, with their total of 1 156 employees representing 53 % of the total number of employees in food-fish plants. Table 2 shows the geographical distribution of labor in the food-fish/parent fish plants.

The group **hatcheries and plants producing fish for stocking** had a total of 435 (74 %) fulltime and 153 (26 %) part-time employees, which means a total of 588 employees. Production of hatchery fish and fish for stocking showed a stronger concentration in certain areas than food-fish production. The county of Hordaland was responsible for 26 % ofthe labor in this sector of the industry. Table 3 shows the geographical distribution.

The rest of the labor was placed in the study under other directly associated undertakings. The labor numbered 175, which is 6 % of the total labor in the fish-farming industry.

Women in fish-farming

The study shows that 592 women were employed by the fish-farming industry. The women's share was 20 %. There was a total of 171 fulltime female employees, which is 8.8 % of all fulltime employees. The number of part-time female employees was much greater, as the total was 421 women, i.e., 42 % of all part-time employees. In other words, 71 % of the women employed by the industry were part-time, while the corresponding proportion of men was 25 %. However, more numerous men than women were part-time employees (584 men and 421 women). Table 4 shows the geographical distribution.

Most women employed in the fish-farming industry worked in food-fish plants (incl. parent fish plants), which had a total of 399 female employees making up 18 % of all labor in this group. However, very few of these women were fulltime employees. Out of a total of 1 381 fulltime employees in the food-fish plants (incl. parent fish plants), only 74 (5 %) were women. If part-time employment is considered, the situation was, however, different, as 40 % of all part-time labor, that is, 325 employees, were women. Thus, women were mainly part-time employees in this sector of the industry.

A similar situation prevailed in the sector consisting of hatcheries/plants producing fish for stocking. Women constituted 21 % of the labor. There were 14 % women among fulltime employees. Part-time female employees represented 42 % of the total number of part-time employees in the group.

In other directly associated undertakings, the women's share was 38 %.

Employment to expand in future

The questionnaire contained a question related to anticipated numbers of employees in undertaking/plant in 12 months' time, i.e., December 1 1986. Just about all undertakings replied that they expected the same or greater employment in 12 months. Altogether, the 675 undertakings expected a total of 544 new employees a year later. This is an anticipated increase of 18 %.

In absolute numbers, the anticipated increase in employment in the plants now existing is biggest in the dominant fish-farming counties More and Romsdal, Nordland, Hordaland, and Sogn and Fjordane. On the other hand, in relative figures the expansion would be strongest in Finnmark (37 %), More and Romsdal (24 %), Rogaland (22 %), and weakest in Hordaland (15 %) and North Trondelag (10 %). Differences in the expansion rates may be associated with the different requirements of fully developed plants.

Besides increases in labor in plants already operating, the report attempts to estimate employment effects of new plants, based on various sources.

Estimates of total increases in labor, naturally wrought with great uncertainties, are as follows :

	Employees
Plants operating 01.12.1985	544
New food-fish plants	200
New hatcheries/plants producing fish for stocking	ab. 250
Total	ab. 1 000

This means that the number of employees in the fish-farming industry would be almost 4 000 on 01.12.1986, which means a 34-% rise in the course of one year.

These figures refer almost exclusively to salmon and rainbow trout production, that is, they do not include possible increases in employment as a result of an expansion in the production of other species.

Size of production units

The present study covers 675 operating units. The average size of unit was 4.4 employees, out of which 2.9 were fulltime and 1.5 part-time employees. A good 60 % of the production units were producing food fish and parent fish with 3 or fewer employees. Only about 11 % had more than 7 employees.

Owners and close relatives of owners

Work by owners and members of the owners' families constitutes a significant input in the fish-farming industry. The study shows that 37 % of the entire labor in the food-fish/parent fish sector and 32 % in the hatchery/stocking fish sector consists of working owners and labor made up of family members.

Age distribution of employees

At the timepoint studied, the labor included 261 employees under the age of 20, which makes up 9 % of the entire labor. 839 employees (28 %) belonged to the 20 - 29 yrs old group. A total of 564 employees (19 %) were 50 or older. Table 5 shows a distribution of the labor based on age and county.

Training background

The information about training backgrounds is deficient, but it indicates that there was a large proportion of employees without any education beyond the elementary school/basic school stage and a fairly equally large group of employees with a minimum of 1 year of special training and a smaller group with higher education.

Recruitment problems

The undertakings were asked whether they had any problems with the recruitment of various types of labor. Only 93 undertakings (14 %) informed that they had such problems. The two northernmost counties had the most problems. They pointed out generally that it was difficult to hire skilled personnel with experience in the industry. Skilled smokers were mentioned among others.

Table 1. Total nuber of employees in fish-farming
Tabell 1. Totalt antall sysselsatte innen fiskeoppdrett.

Fylke County	Heltid Full-time	Deltid Part-time	Totalt	Andel i %
Sør-Østlandet	34	59	93	3,2
Rogaland	89	45	134	4,6
Hordaland	431	172	603	20,5
Sogn og Fjordane	212	113	325	11,0
Møre og Romsdal	292	163	455	15,4
Sør-Trøndelag	194	65	259	8,8
Nord-Trøndelag	140	83	223	7,6
Nordland	365	211	576	19,5
Troms	133	72	205	7,0
Finnmark	53	22	75	2,5
Norge Norway	1943	1005	2948	100,0

Table 2. Employees of the food-fish and parent fish sector
Tabell 2. Sysselsatte i matfisk- og stamfiskanlegg.

Fylke	Heltid	Deltid	Total	Andel i %
Sør-Østlandet	13	39	52	2,4
Rogaland	64	39	103	4,7
Hordaland	272	115	387	17,7
Sogn og Fjordane	155	86	241	11,0
Møre og Romsdal	194	133	327	15,0
Sør-Trøndelag	169	59	228	10,4
Nord-Trøndelag	113	75	188	8,6
Nordland	263	179	442	20,2
Troms	93	62	155	7,1
Finnmark	45	17	62	2,8
Norge	1381	804	2185	100,0

Table. Employees of hatcheries/plants producing fish for stocking
Tabell 3. Sysselsatte i klekkeri/settefiskanlegg.

Fylke	Heltid	Deltid	Total	Andel i %
Sør-Østlandet	19	19	38	6,5
Rogaland	21	5	26	4,4
Hordaland	119	36	155	26,4
Sogn og Fjordane	37	25	62	10,5
Møre og Romsdal	83	27	110	18,7
Sør-Trøndelag	24	6	30	5,1
Nord-Trøndelag	24	7	31	5,3
Nordland	64	16	80	13,6
Troms	38	10	48	8,2
Finnmark	6	2	8	1,4
Norge	435	153	588	100,0

Table 4. Total numbers of female employees in fishfarming / % of women of all labor
Tabell 4. Totalt antall sysselsatte kvinner innen fiskeoppdrett.

Fylke	Heltid	Deltid	Total	Andel av alle Sysselsatte %
Sør-Østlandet	3	17	20	21,5
Rogaland	5	16	21	15,7
Hordaland	39	66	105	17,4
Sogn og Fjordane	38	65	103	31,7
Møre og Romsdal	22	57	79	17,4
Sør-Trøndelag	8	31	39	15,1
Nord-Trøndelag	9	37	46	20,6
Nordland	35	99	134	23,3
Troms	9	26	35	17,1
Finnmark	3	7	10	13,3
Norge	171	421	592	20,1

Table 5. Age distribution of employees in fish-farming
Tabell 5. Sysselsatte i fiskeoppdrett etter alder.

Fylke	-20	20-29	30-49	50-64	64-	Sum
Sør-Østlandet	7	17	48	18	3	93
Rogaland	14	31	59	26	4	134
Hordaland	55	170	270	98	10	603
Sogn og Fjordane	31	84	155	44	11	325
Møre og Romsdal	44	100	193	95	23	455
Sør-Trøndelag	20	71	98	64	6	259
Nord-Trøndelag	23	70	95	30	5	223
Nordland	41	203	237	83	12	576
Troms	19	86	90	28	2	205
Finnmark	7	27	39	2	0	75
Norge	261	839	1284	488	76	2948